

CLAIMS:-

1. A pagewidth printhead assembly for a printer, the printer having a page width, the assembly comprising:

5 a longitudinal core contained within and restrained by an outer laminated shell ;
 a modular, pagewidth printhead mounted to the core;
 the printhead formed from one or more silicon structures;
 the shell and the printhead having substantially the same effective coefficient of
 thermal expansion.

10 2. A printhead assembly according to claim 1, wherein:
 the pagewidth printhead is stationary and generally as long as the page width.

15 3. A printhead assembly according to claim 1, wherein:
 the core has formed in it one or more ink reservoirs which collectively lead to one
 or more printhead micro mouldings which are carried by the core.

20 4. A printhead assembly according to claim 1, wherein:
 the laminated shell is formed from at least three metals laminated together, the
 laminate having inner and outer layers which have the same coefficient of thermal
 expansion.

25 5. A printhead assembly according to claim 1, wherein:
 the printhead is fabricated from silicon and constructed using micro
 electromechanical techniques.

30 6. A printhead assembly according to claim 1, wherein:
 the core is an extrusion in which is formed separate ink reservoirs.

7. A printhead assembly according to claim 2, wherein:
the outer shell is a laminated structure having an odd number of longitudinally extending continuous layers of at least two different metals wherein layers in a symmetrical arrangement.
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8. A printhead assembly according to claim 1, wherein:
the modular printhead comprises MEMS modules which are positioned end to end along the core.
- 10 9. A printhead assembly according to claim 1, wherein:
the laminated shell comprises two or more different materials, each having a different coefficient of thermal expansion.
10. A printhead assembly according to claim 9, wherein:
15 at least two materials have coefficients of expansion which are different than the coefficient of expansion of silicon.
11. A printhead assembly according to claim 10, wherein:
the laminated shell comprises outer layers of invar.
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12. A printhead assembly according to claim 1, wherein:
the assembly has a composite coefficient of expansion generally equal to the coefficient of expansion silicon.
- 25 13. A printhead assembly according to claim 8, wherein:
each module further comprises ink nozzles, chambers and actuators.
14. A printhead assembly according to claim 1, wherein:
the shell partially encases the core.
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